NEW LEGUMES FOR THE SOUTH

A radio talk by Roland McKee, Bureau of Plant Industry, delivered through Station WRC and 32 other stations associated with the National Broadcasting Company, February 17, 1930 at 12:55 p.m. Eastern Standard Time.

Probably no group of plants is of more importance to agriculture than legumes. Their thrifty habit of taking nitrogen from the air through the symbotic bacteria on their roots, make them important factors in maintaining and improving soil fertility. But this is not the only good quality of this hard-working plant group. Legumes have a high protein content and consequently are of high feeding value.

It is evident, therefore, that improved or new legumes always will be in great demand and welcome with enthusiasm.

There are several legumes, new to the south, that are proving valuable for pasturage, hay, and soil improvement.

Crotalaria, (spelled c-r-o-t-a-l-a-r-i-a) a new summer annual legume that has proved well adapted to sandy lands in the south, is making friends everywhere in Dixie. It has been used most extensively for soil improvement in the citrus groves of Florida, but in experimental work it has shown its ability to flourish much farther north. Corn and cotton, following Crotalaria, have given greatly increased yields and it seems suited for general soil improvement. The plants are upright and lend themselves well for either a green manure or hay crop. However, its value for hay has not been fully determined, although preliminary experiments indicate that it probably can be used for this purpose. Its heavy growth, on poor sandy land, makes it of special interest and suggests its value for the Coastal Plains area.

While the common lespedeza, (spelled l-e-s-p-e-d-e-z-a) also known as Japan clover, is not a new legume in the south, there are new varieties with good qualities that make them of special interest. Two of these are giant varieties of Lespedeza striata, the common lespedeza of the south. One was developed by the Tenn. Agri. Exp. Sta. and is known as Tenn. 76. It has a distinctly upright habit and produces large yields of the best hay. It is late in ripening seed and from Northern Tenn. into Kentucky is sometimes caught by an early freeze. In Western Tenn. it is the leading variety. Kobe lespedeza is another giant variety, much like the Tenn. 76, but not as erect in habit and with much larger seed. It is earlier to ripen seed than Tenn. 76 and is therefore a reliable seeder farther north. Both of these varieties can be recommended for the territory from Tenn. and North Carolina, southward. The Korean lespedeza is a distinct species with coarser stems and larger leaves than Kobe and much earlier. It is really too early for the far south, since in Tenn. and farther south it matures and dies a month before frost. Korean is a heavy seeder and the seed is distinctive, being intermediate in size, between Kobe and common. As it

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appears in the trade today, the seed of Korean weighs 44 pounds per bushel, while that of Kobe weighs 24. The common weighs about 30 pounds when well cleaned, though the legal weight is 25. The lespedezas just mentioned are annuals, although where they do well they reseed and propagate themselves.

Besides these there are a number of perennial lespedezas under experiment, some of which may prove useful although at this time not enough is known of their potential value to permit of a positive statement.

Austrian winter pea is one of the newest southern legumes and one that has gained great favor and popularity. It is a winter hardy variety of the field pea adapted to practically all parts of the south, and is one of the best plants to grow as a winter crop to be plowed under in the spring for soil improvement. By following this practice many farmers in the south have doubled their yields of corn and cotton.

Monantha(spelled M-o-n-a-n-t-h-a) vetch is another winter annual legume that has done well in the extreme southern part of the Gulf Coast area and is one of our most rapid growing winter legumes. Being less winter hardy than Austrian peas or hairy vetch, however, Monantha vetch will often kill if used in the more northern part of the south.

Sesbania and Hungarian vetch are two other legumes that promise to be of value for the south. Any one desiring further information regarding these or other legumes should address the Department of Agriculture, Washington, D. C.